

What is claimed is:

1. A processing apparatus, which comprises:
  - a processing apparatus body for executing a prescribed process to a target object;
  - 5 control mechanism for controlling said processing apparatus body; and
  - an information storage section for inputting a signal from said control mechanism and storing information included in said signal.
- 10 2. The processing apparatus according to claim 1, wherein:
  - said control mechanism comprises a first and second controller each of which executes different control of said processing apparatus body; and
  - 15 said information storage section inputs at least one signal among a signal from said first controller, a signal from said second controller, and a signal transmitted and received between said first controller and said second controller.
- 20 3. A processing apparatus, which comprises:
  - a processing apparatus body for executing a prescribed process to a target object;
  - a control mechanism including a first and second controllers each of which executes different control of said processing apparatus body; and
  - 25 an information storage section for inputting a signal transmitted and received between said first

controller and said second controller and storing information included in said signal.

4. The processing apparatus according to claim 3, wherein:

5       said processing apparatus body comprises an additional detection section for detecting a signal which is not transmitted and received between said first controller and said second controller; and  
10       said information storage section inputs said signal from said additional detection section and stores information included in said signal from said additional detection section.

5. A processing apparatus, which comprises:

15       a processing apparatus body including a plurality of process units for executing a prescribed process to a target object and a transport apparatus for delivering said target object between said plurality of process units;

20       a first controller for controlling said processing apparatus as a whole;

      a second controller for controlling said plurality of process units; and

25       an information storage section for inputting a signal transmitted and received between said first controller and said second controller and storing information included in said signal.

6. The processing apparatus according to claim 5,

wherein:

5        said plurality of process units comprises an additional detection section for detecting a signal which is not transmitted and received between said first controller and said second controller; and

10      said information storage section inputs said signal from said additional detection section and stores information included in said signal from said additional detection section.

15      7. The processing apparatus according to claim 5, which further comprises a information process section for inputting information from said first controller and said information storage section and analyzing the inputted information.

20      8. The processing apparatus according to claim 5, wherein said information storage section stores at least one information among measurement information, alarm information, operation information in said process unit, and transport information of transport of said target object in said transport apparatus.

25      9. An information storage apparatus for storing information in a processing apparatus including a processing apparatus body for executing a prescribed process to a target object and a control mechanism for controlling said processing apparatus body, which comprises an information storage section and signal supply means, wherein:

50 said signal supply means inputs a signal from said control mechanism and supplies said information storage section with said signal; and

5 said information storage section stores said information included in said signal.

10 10. The information storage apparatus according to claim 9, wherein said control mechanism comprises: a first and second controller each of which executes different control of said processing apparatus body, wherein said information storage section inputs at least one signal among a signal from said first controller, a signal from said second controller, and a signal transmitted and received between said first controller and said second controller.

15 11. An information storage apparatus for storing information in a processing apparatus including: a processing apparatus body for executing a prescribed process to a target object; and a control mechanism which includes a first and second controller each of which executes a different control of said processing apparatus body,

which comprises signal supply means and an information storage section, wherein:

25 said signal supply means inputs a signal transmitted and received between said first controller and said second controller and supplies said information storage section with said signal; and

50 said information storage section stores said information included in said signal.

12. The information storage apparatus according claim 11, which further comprises:

5 an additional detection section for detecting a signal which is not transmitted and received between said first controller and said second controller; and  
10 additional detection signal supply means for supplying said information storage section with said signal from said additional detection section.

15 13. An information storage apparatus for storing information in a processing apparatus including: a processing apparatus body which includes a plurality of process units for executing a prescribed process to a target object and a transport apparatus for delivering said target object between said plurality of process units; a first controller for controlling said processing apparatus as a whole; and a second controller for controlling said plurality of process units,

20 which comprises signal supply means and an information storage section, wherein:

25 said signal supply means inputs a signal transmitted and received between said first controller and said second controller and supplies said information storage section with said signal; and

said information storage section stores said

information included in said signal.

14. The information storage apparatus according to claim 13, wherein said plurality of process units comprises:

5           an additional detection section for detecting a signal which is not transmitted and received between said first controller and said second controller; and  
              additional detection signal supply means for supplying said information storage section with the  
10           detected signal.

15. The information storage apparatus according to claim 13, wherein said information storage section stores at least one information among measurement information, alarm information, operation information  
15           in said plurality of process units, and transport information of transport of said target object in said transport apparatus.

16. An information storage method for storing information in a processing apparatus including: a processing apparatus body for executing a prescribed process to a target object; and a control mechanism for controlling said processing apparatus body, which comprises the steps of:

25           taking out a signal from said control mechanism; and  
              storing information included in said signal.

17. The information storage method according to claim 16, wherein:

5           said control mechanism comprises: a first and second controller each of which executes different control of said apparatus body; and

10           said information is at least one information included in said signal among a signal from said first controller, a signal from said second controller, and a signal transmitted and received between said first controller and said second controller.

15           18. An information storage method for storing information in a processing apparatus including: a processing apparatus body for executing a prescribed process to a target object; and a control mechanism including a first and second controller each of which executes a different control of said processing apparatus body, which comprises the steps of:

20           taking out a signal which is transmitted and received between said first controller and said second controller; and

25           storing said information included in said signal which is transmitted and received between said first controller and said second controller.

19. The information storage method according claim 18, which further comprises the steps of:

25           detecting a signal which is not transmitted and received between said first controller and said second controller; and

              storing said information included in said signal

which is not transmitted and received between said first controller and said second controller.

20. An information storage method for storing information in a processing apparatus including: a processing apparatus body which includes a plurality of process units for executing a prescribed process to a target object and a transport apparatus for delivering said target object between said plurality of process units; a first controller for controlling said processing apparatus as a whole; and a second controller for controlling said plurality of process units, which comprises signal supply means and an information storage section, which comprises the steps of:

15 taking out a signal which is transmitted and  
received between said first controller and said second  
controller; and

storing said information included in said signal which is transmitted and received between said first controller and said second controller.

21. The information storage method according claim 20, which further comprises the steps of:

detecting a signal which is not transmitted and received between said first controller and said second controller; and

storing said information included in said signal  
which is not transmitted and received between said

first controller and said second controller.

22. The information storage method according to  
claim 16, wherein said signal is taken out every said  
target object, every lot of said target objects, or  
every said process.

10            24. The information storage method according to  
claim 20, wherein said signal is taken out every said  
target object, every lot of said target objects, or  
every said process.

25. A processing system, which comprises:  
15        a plurality of processing apparatus bodies each of  
which executes prescribed process to a target object;  
          a plurality of control mechanisms each of which  
controls each of said plurality of treatment apparatus  
bodies:

20 a data storage section for taking in signals from  
said plurality of control mechanisms and storing  
information included in said signals;  
an information process section for inputting said  
information from said plurality of processing apparatus  
bodies and analyzing said information.

26. The processing system according to claim 25,  
which further comprises a monitor computer connected

through a communication network with said information process section.

27. The processing system according to claim 26, wherein said monitor computer receives through said communication network at least one information among:

5 information for controlling said plurality of processing apparatus bodies; measurement information; alarm information; operation information in said plurality of processing apparatuses; transport information of said target object; and sensor information from sensors which belong to said plurality of processing apparatuses and are connected only with said information storage section.

10 28. The processing system according to claim 27, wherein said monitor computer is connected with a display for displaying at least one information among: said measurement information; said alarm information; said operation information in said plurality of processing apparatuses; said transport information of said target object.

15 29. The processing system according to claim 25, wherein said control mechanism comprises a display for displaying at least one information among recipe information, maintenance information, measurement information, operation information in each of said plurality of processing apparatuses; and said transport information of said target object.

30. The processing apparatus according to claim 1,  
which further comprises:

5           detection means for detecting at a prescribed timing  
an information quantity stored in said information  
storage section; and

10           an information erase mechanism for erasing  
prescribed information stored in said information  
storage section, when a still available memory capacity  
of said information storage section is smaller than a  
15           prescribed value, by comparing the detected information  
quantity with a quantity of information of a next  
processing.

31. The processing apparatus according to claim 3,  
which further comprises:

15           detection means for detecting at a prescribed timing  
an information quantity stored in said information  
storage section; and

20           an information erase mechanism for erasing  
prescribed information stored in said information  
storage section, when a still available memory capacity  
of said information storage section is smaller than a  
25           prescribed value, by comparing the detected information  
quantity with a quantity of information of a next  
processing.

32. The processing apparatus according to claim 30,  
wherein said erase mechanism erase said information  
quantity of a next information in such an order that

50 said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.

5 33. The processing apparatus according to claim 31, wherein said erase mechanism erase said information quantity of a next information in such an order that said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.

10 34. The processing apparatus according to claim 9, which further comprises:

detection means for detecting at a prescribed timing an information quantity stored in said information storage section; and

15 an information erase mechanism for erasing prescribed information stored in said information storage section, when a still available memory capacity of said information storage section is smaller than a prescribed value, by comparing the detected information quantity with a quantity of information quantity of a next processing.

20 35. The processing apparatus according to claim 11, which further comprises:

25 detection means for detecting at a prescribed timing an information quantity stored in said information storage section; and

an information erase mechanism for erasing

prescribed information stored in said information storage section, when a still available memory capacity of said information storage section is smaller than a prescribed value, by comparing the detected information quantity with a quantity of information quantity of a next processing.

36. The processing apparatus according to claim 34, wherein said erase mechanism erase said information quantity of a next information in such an order that said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.

37. The processing apparatus according to claim 35, wherein said erase mechanism erase said information quantity of a next information in such an order that said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.

38. The information storage method according to claim 16, which further comprises the steps of:

detecting at a prescribed timing an information quantity stored in said information storage section; and

erasing prescribed information stored in said information storage section, when a still available memory capacity of said information storage section is smaller than a prescribed value, by comparing the

detected information quantity with a quantity of information of a next processing.

39. The information storage method according to claim 18, which further comprises the steps of:

5           detecting at a prescribed timing an information quantity stored in said information storage section; and

10           erasing prescribed information stored in said information storage section, when a still available memory capacity of said information storage section is smaller than a prescribed value, by comparing the detected information quantity with a quantity of information of a next processing.

15           40. The information storage method according to claim 38, wherein said information quantity of a next information is erased in such an order that said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.

20           41. The information storage method according to claim 39, wherein said information quantity of a next information is erased in such an order that said prescribed information are stored, when said still available memory capacity is smaller than said quantity of information of a next processing.